

## ABSTRACT OF THE DISCLOSURE

Ultrasound imaging adapts as a function of a coherence factor. Various beamforming, image forming or image processing parameters are varied as a function of a coherence factor to improve detail resolution, contrast resolution, dynamic range or SNR. For example, a beamforming parameter such as the transmit or receive aperture size, apodization type or delay is selected to provide maximum coherence. Alternatively or additionally, an image forming parameter, such as the number of beams for coherent synthesis or incoherent compounding, is set as a function of the coherence factor. Alternatively or additionally an image processing parameter such as the dynamic range, linear or nonlinear video filter and/or linear or nonlinear map may also adapt as a function of the coherence factor.